

High Performance PCI Bus, IEEE 488.2 Controller

INES GPIB-PCI



- **Windows 95/98 Plug& Play**
- **More than 1 MB/s in programmable I/O**
- **Synchronised GPIB controller with IEEE 488.2 'Hardware Trigger Disable'**
- **HP-IB driver (SICL/TULIP) for HP VEE, HP Basic and HP BenchLink**
- **Compatible with HP VEE, HP Basic TestPoint, DIAdem, Visual Designer, DASyLab, LabView, Visual C, C/C++, Visual Basic, Delphi**
- **Windows NT driver available**

The ines GPIB-PCI interface systems for MS-Windows 95/98 and NT completely support the IEEE-488.2, SCPI, SICL/TULIP (HP) and VISA standard and may be operated as a system controller or as a device.

Automatic software

The ines-Windows system exclusively consists of DLLs (Dynamic-Link-Libraries), which can be subdivided in three groups: Command Interpreter; Function-Library and C-Library, Runtime Help and Error Messages, ines IEEE488.2-BIOS (IEEE- Basic Input/Output System). This has the advantage that IEEE 488.2 applications do not use up any hard disk memory unnecessarily by multiple allocation with identical codes.

HP-Basic syntax

The HP syntax (HP-Basic) has been chosen as the IEEE-488 command language. Forty-seven ines commands are available to the user. The command interpreter was developed to allow HP compatible programming (HP syntax) in any high level language.

The ines IEEE 488.2 command interpreter

The ines command interpreter contains an interface to the programming language being used (the software interface) and an interface to the ines IEEE 488.2-BIOS. The software interface allows the command interpreter to recognize, interpret and execute the IEEE-488 specific commands in an application program. The syntax is checked and if correct the corresponding routine is called under the ines IEEE 488.2-BIOS.

The unique ines IEEE 488.2-BIOS

To be able to achieve high transfer rates, the software is split into the command



DESCRIPTION	PRODUCT CODE
GPIB-PCI-NT GPIB controller for PCI bus with driver for Win95/98/NT, driver software for VB, C/C++, HP VEE, HT Basic, DasyLab, Labview	909 869 20
GPIB-PCI-SICL GPIB controller for PCI bus with driver only for HP VEE, HP Basic, and Labview under Win95/98 & NT/2000	909 894 60

interpreter and the BIOS. The ines IEEE 488.2-BIOS optimized the IEEE-488.2 routines for speed. The user can use interrupt calls to gain access to the IEEE 488-BIOS and achieve transfer rates of more than 1 Mbytes/sec in programmed I/O. This transfer performance greatly exceeds what most measurement devices are capable of.

The ines IEEE 488-C-library

For the 'C' programming language a special C- Library was developed. This way the IEEE488 driver with all commands becomes part of the 'C' dialect.

LPT and COM redirection

The automatic redirection of all LPT and COM interfaces can be done with a simple PRINTER command.

Easy to use file transfer

Direct data transfer between systems, for example between two computers, is accomplished with the ENTFILE and OUTFILE commands. With the help of these functions, it is possible to transfer data files of any size from one hard-disk to the other.

Memory management

ines-IEEE 488 offers commands such as

MEMSET INMEM, and MEMVEC to reserve main memory in the computer for storing measurement values. Considerably reducing the amount of programming. Reserving memory protects the measurement values from being overwritten by other data.

Interactive supervision and control

ines-IEEE 488 offers an interactive program to quickly gain experience with the measurement devices attached to the system. With the communication program WALI (Windows Advanced Look to IEEE on GPIB-PCI-NT only), you can create complex command sequences, set up loops, wait for a service request (SRQ) before accessing a measurement device, or read and transfer data directly into a data file with the name specified in the ENTFILE command. Operations such as these and more are all possible without writing a program.

Software compatibility

The ines GPIB boards are compatible with the most major programs in test and measurement such as HP-VEE, HP Instruments Basic for Windows, HP-BenchLink, HP-Basic for Windows, HP-BASIC, DaDisp488, DASyLab, DIADem, DIA/DAGO-PC, FRAME/FAMOS, TestPoint, Viewdac, ASYST, Labtech Notebook, Visual Designer, LabWindows, LabView.

HP-IB driver for HP-VEE & HP-Basic for Windows

Especially for HP-VEE and HP-BenchLink ines designed a HP-IB SICL/TULIP driver in cooperation with Hewlett Packard. This driver provides 100% functionality of all HP-IB functions required by HP- VEE, HP-Basic for Windows and HP-BenchLink.

The GPIB-PCI is CE marked for EMC.